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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/909,025

07/19/2001

Neil F. Schutzman

EMC-011PUS

9106

51576

7590

05/02/2006

EMC CORPORATION

c/o DALY, CROWLEY, MOFFORD & DURKEE, LLP

354 TURNPIKE STREET

SUITE 301A

CANTON, MA 02021-2714

EXAMINER

WONG, LESLIE

ART UNIT

PAPER NUMBER

2164

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/909,025

Applicant(s)

SCHUTZMAN ET AL.

Examiner

Leslie Wong

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2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 47-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 47-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02 February 2006 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 47-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelb et al. (hereinafter "Gelb", US Patent 5,018,060) and in view of Collins (US 20020129216 A1).

As per claim 1, Gelb discloses a method of creating a data storage pool, comprising:

assigning at least one storage property to selected ones of the plurality of storage resources in response to user instructions to define the data storage pool (Gelb, col. 7, line 54 – col. 10, line 67);

receiving a logical expression to identify respective ones of the storage resources that are available for a requested store operation based upon the storage properties assigned to the selected ones of the storage resources (Gelb, col. 12, line 5 – col. 15, line 67, "the symbol | indicates logic OR, && indicates a logic AND, ..."); and

allocating selected ones of the identified storage resources for the requested store operation (Gelb, col. 12, line 5 – col. 15, line 67).

Gelb does not explicitly teach providing information for a plurality of storage resources in response to a user query.

Collins, however, teaches providing information for a plurality of storage resources in response to a user query as an administrator or user defines parameters for identifying the unused and/or available storage capacity through an interface at the network server, a workstation or the administrator terminal (Collins [0030]).

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It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because Collins' teaching would have allowed Gelb's to identify the total available storage capacity by enabling the user to query and identify the unused and/or available storage capacity as suggest by Collins at [0031].

As per claim 48, Gelb and Collins teach all the claimed subject matters as discussed in claim 47, and Gelb further teaches the logical expression includes at least one logical operator and at least two storage properties (Gelb, col. 12, line 5 – col. 15, line 67).

As per claim 49, Gelb and Collins teach all the claimed subject matters as discussed in claim 48, and Gelb further teaches the logical expression includes an amount of storage needed for the required store operation (Gelb, col. 4, lines 47-48, col. 17, lines 57-59).

As per claim 50, Gelb and Collins teach all the claimed subject matters as discussed in claim 47, and Collins further teaches receiving a new property as part of the logical expression ((Collins [0030])).

As per claim 51, Gelb and Collins teach all the claimed subject matters as discussed in claim 47, and Gelb further teaches assigning a particular one of the at

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least one storage properties to particular type of storage resource (Gelb, col. 7, line 54 – col. 8, line 62).

As per claim 52, Gelb and Collins teach all the claimed subject matters as discussed in claim 47, and Gelb further teaches the plurality of storage resources includes logical volumes (Gelb, col. 17, lines 18-22).

As per claim 53, Gelb and Collins teach all the claimed subject matters as discussed in claim 47, and Gelb further teaches receiving a user instruction to identify a storage resource as hand-off storage (Gelb, col. 7, line 54 – col. 8, line 62).

As per claim 54, Gelb and Collins teach all the claimed subject matters as discussed in claim 47, and Gelb further teaches the user query is generated by a storage administrator (Gelb, col. 4, lines 57-58, col. 12 – col. 16).

As per claim 55, Gelb and Collins teach all the claimed subject matters as discussed in claim 47, and Gelb further teaches the logical expression is generated by a database administrator (Gelb, col. 13 – 16, “/* allow data base administrators to select */”).

Claims 56-63 are rejected on grounds corresponding to the reasons given above for claims 47-49 and 51.

As per claims 63 and 64, Gelb and Collins teach all the claimed subject matters as discussed in claims 47 and 60, Collins further teaches determining which ones of the identified storage resources have preferred characteristics (Collins col. 8, lines 22-62).

As per claim 65, Gelb and Collins teach all the claimed subject matters as discussed in claim 47, Gelb further teaches wherein the preferred characteristics include storage resources having multiple disk spindles (col. 7, lines 20-26).

As per claim 66, Gelb and Collins teach all the claimed subject matters as discussed in claim 47, Collins further teaches wherein the logical express includes a storage property not assigned to any of the storage resources, and further including:

Receiving an identification of a first one of the plurality of storage resources having unassigned storage property (Collins 0030); and

Allocating the first one of the storage resources based upon the logical expression (Collins 0031 and 0035).

Conclusion

4. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure.

Response to Arguments

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5. Applicant's arguments with respect to claims 47-66 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (571) 272-4120. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES RONES can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Leslie Wong
Primary Patent Examiner
Art Unit 2164

LW
April 26, 2006